

## Claims

## WHAT IS CLAIMED IS:

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An electrical connector system, comprising:

an electrical connector adapted to receive a mating connector; and a temperature sensor on said electrical connector for detecting a temperature of the mating connector.

- 2. The electrical connector system as recited in claim 1, wherein the electrical connector includes an opening for receiving the mating connector, said temperature sensor extending into said opening.
- 3. The electrical connector system as recited in claim 1, wherein said electrical connector comprises an electronic card connector.
- 15 4. The electrical connector system as recited in claim 3, wherein said electronic card connector includes a conductive cover having an aperture therein, said temperature sensor extending into said aperture.
- 5. The electrical connector system as recited in claim 4, wherein said20 cover includes a tab associated with said aperture, said temperature sensor mounted to said tab.
  - 6. The electrical connector system as recited in claim 5, further comprising an eject mechanism for extracting the mating connector.

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7. The electrical connector system as recited in claim 6, wherein said temperature sensor remains a distance away from said eject mechanism.

8. The electrical connector system as recited in claim 1, further comprising a flexible circuit, said temperature sensor mounted to said flexible circuit.

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An electrical connector for an electronic card, comprising: a header;

a frame associated with said header to guide the electronic card into engagement with said header; and

a temperature sensor associated with said frame to detect a temperature of the electronic card.

- 10. The electrical connector as recited in claim 9, further comprising a cover over said header and said frame, said cover including an aperture therein to receive said temperature sensor.
- 11. The electrical connector as recited in claim 10, wherein said cover includes a tab associated with said aperture, said temperature sensor mounted to said tab.

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- 12. The electrical connector as recited in claim 9, further comprising an eject mechanism for extracting the electronic card.
- 13. The electrical connector as recited in claim 12, wherein said25 temperature sensor remains a distance away from said eject mechanism.
  - 14. The electrical connector system as recited in claim 9, further

comprising a flexible circuit, said temperature sensor mounted to said flexible circuit.

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- 15. The electrical connector system as recited in claim 14, wherein said flexible circuit extends along said frame. 5
  - An electrical connector system for an electronic card, comprising: 16. an electrical connector
    - a frame associated with said electrical connector;
  - a temperature sensor associated with said frame to detect a temperature of the mating connector; and
  - a transition board, said electrical connector and said temperature sensor connected to said transition board.
  - 17. The electrical connector system as recited in claim 16, wherein said connector and said temperature are discretely connected to said transition board.
- The electrical connector system as recited in claim 16, further 18. comprising a flexible circuit secured to said transition board, said 20 temperature sensor mounted to said flexible circuit.
  - The electrical connector system as recited in claim 18, wherein said 19. flexible circuit extends along said frame.
- A method of monitoring a temperature of an electronic card in an electrical connector mounted to an electronic device, comprising the steps

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of:

sensing the temperature of the electronic card; and transmitting the temperature of the electronic card to the electronic device.

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21. The method as recited in claim 20, wherein the electronic card communicates with the electronic device through the connector, said transmitting step independent of the communications between the connector and the electronic device.

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22. The method as recited in claim 20, wherein the connector includes a transition board, said transmitting step occurring through the transition board.

